

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022417**Date Inspected:** 04-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve Jensen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Tower Splice – 83 Meter elevation, South Tower leg: This QA Inspector randomly observed the upper and lower Interior Corner Closure Splice Plates located at the B- C skin corner and C-D skin corner had been tack welded into position. This QA Inspector randomly observed the lower splice plate at C-D skin appeared to have a root opening/gap of approximately 2-3 mm. QC Inspector Steve Jensen informed this QA Inspector the vast majority of the tack welds on the upper and lower plates at B- C skin had cracked. This QA Inspector observed the cracked tack welds appeared to be approximately 100 mm in length having 10-12 mm legs. This QA Inspector observed QC Inspector Steve Jensen had performed Magnetic Particle Testing (MT) on the tack welds and marked “remove” on the plate adjacent to the applicable cracked tack welds.

Tower Splice – 83 Meter elevation, West Tower leg: This QA Inspector observed various ABF personnel using power grinders to remove the zinc based primer at the various fillet weld locations, prior to the start of any fit up work.

Tower Base – 3 to 13 Meter elevation: This QA Inspector randomly observed ABF welding personnel Rick Clayborn (#2773) using the Flux Cored Arc Welding (FCAW) process for welding the temporary attachments at the various Electro Slag Welding (ESW) joints. This QA Inspector randomly observed ABF welding personnel

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Kenneth Chappell using the Shielded Metal Arc Welding (SMAW) process to fit and tack weld the various pates being used a temporary attachments for the ESW process. This QA Inspector randomly observed QC Inspector Pat Swain monitoring the work at each location welding was being performed.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

This QA Inspector was informed by Assistant Structural Material Representative (SMR) Jason Lee a Request For Information (RFI) had been submitted regarding the lack of access to perform welding at the bottom of the lower splice plates at elevation -83. It was also confirmed that all base material was Grade 345 and the thicknesses as follow; Interior Corner Closure Splice Plates 65 mm and Interior Corner Closure Plates at the area to be welded are 45 mm.

This QA Inspector had a conversation with QC Inspector Robert Mertz and QCM Jim Bowers regarding the applicable Welding Procedure Specification (WPS) and specifically the minimum preheat specified in the WPS. QCM Jim Bowers informed this QA Inspector the modifications had been approved per various Construction Engineers and to contact Caltrans Engineer Doug Wright for the specific details.

This QA Inspector was informed by Assistant Structural Material Representative (SMR) Jason Lee a Request For Information (RFI) had been submitted regarding the lack of access to perform welding at the bottom of the lower splice plates at elevation -83.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
